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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,074	11/21/2001	Gernot M. Hirse	22750/503	1487
26646	7590	01/25/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			COLE, LAURA C	
			ART UNIT	PAPER NUMBER
			1744	
DATE MAILED: 01/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,074

Applicant(s)

HIRSE, GERNOT M.

Examiner

Laura C Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-2 and 5-7 are objected to because of the following informalities:

In Claim 1 Line 8 it is confusing as to what is meant by "a perpendicular of the hinge". Is the Applicant referring to "a perpendicular" in the same plane as the carrier wings or in the vertical plane that the handle extends in? Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courtney et al., USPN 5,896,613 in view of Kieson et al., USPN 5,625,918 and in further view of WO 98/06316 ('316).

Courtney et al. disclose a floor mop that comprises a mop made of an absorbent material (Figures 1-4 (28)), a mop frame including a central carrier piece (Figures 1-4 (22)), two mop carrier wings (Figures 1-4 (18) and (20)), each wing pivotably mounted by a pin (Figures 4 and 5 (24) and (26)), the carrier wings having inner surfaces which carry the mop (Column 2 Lines 48-49) and are pressed together by squeezing (Column 2 Lines 51-54), wherein one of the side edges extending from the hinge edge is slanted toward the opposite side edge (Figure 1, the one edge that is slanted toward the

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opposite edge would be the edge that forms a tip when it is not in the squeezing position, and the opposite edge is (92)). Further each wing forms a trapezoid with an included right angle (Figure 1, the trapezoid is formed by the hinge edge that is below the center carrier piece, the slanted edge, the opposite edge (92), and the edge (80); the right angle being formed between the hinge edge and the opposite edge (92) or between the opposite edge (92) and the edge (80)) and the larger base line of the trapezoid would be the hinge edge (Figure 1). The "length" of the mop head is the dimension extending from the left side of the mop head to the right side of the mop head and is perpendicular to pivot points, as the mop head is oriented in Figure 4. Courtney et al. discloses that pins (24, 26) act as pivot points however do not disclose that the pins in any way serve as a "hinge." Further, Courtney et al. does not disclose water drain grooves that run at an angle to a perpendicular of the hinge edge towards the side edge.

Kieson et al. discloses a wringer mop that comprises a mop made of an absorbent material (Figures 1-3 (75)), a mop frame including a central carrier piece (Figures 3-4 (52)), two mop carrier wings (Figures 1-5 and 7; Column 4 Line 65 to Column 5 Line 2), each wing pivotably mounted by a hinge edge (Column 4 Lines 59 - 65), the carrier wings having inner surfaces which carry the mop (Column 4 Lines 27-36) and are pressed together by squeezing (Column 5 Lines 40-50, rollers wring downward on the wings), wherein one of the side edges extending from the hinge edge is slanted toward the opposite side edge (the hypotenuse of the triangle shown in Figures 1-5 and 7). The mop carrier wing forms a triangle (Figures 1-5 and 7). The

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"length" of the mop head is the dimension extending from the top side of the mop head to the bottom side of the mop head and is perpendicular to the hinge, as the mop head is oriented in Figure 4. Additionally, Kieson et al. does not disclose water drain grooves that run at an angle to a perpendicular of the hinge edge towards the side edge.

'316 discloses water drain grooves (87), as mentioned above, to assist in draining of liquids of the mop (Page 12 Lines 14-18). Further, '316 discloses that the water drain grooves "*extend the length of the mop head*" wherein also in Figure 6 it shows the grooves (87) oriented along the length perpendicular to the direction of the pivoting handle, and additionally there are openings towards the side edge (Page 12 Lines 12-14; Figure 6). The water drain grooves are arranged parallel to one another (Figure 6). These drain grooves would inherently run at *an angle* to any planar edge piece or physical element (such as a hinge) attached to the device, even those that run parallel (zero degrees or 180 degrees) to the water drain grooves that extend the length of the mop head.

It would have been obvious for one of ordinary skill in the art to modify the mounting structure of the carrier piece of Courtney et al. so that each wing is mounted by a hinge edge of a center piece as Kieson et al. teach so to have what is known as a "living hinge" so as to manufacture the entire carrier piece assembly from one unitary piece to save on the cost and time of manufacturing. Further, it would have been obvious for one of ordinary skill in the art to modify the device of Courtney et al. and Kieson et al. to have drain grooves extending the length of the mophead within the

carrier wing such as the ones that '316 teach in order to assist in draining of the mopping liquid.

3. Claims 1-2 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kieson et al., USPN 5,625,918 in view of Altrock, USPN 3,224,025 and in further view of WO 98/06316 ('316).

Kieson et al. disclose all elements above, however the carrier wings are not quadrilateral shaped. Additionally, Kieson et al. does not disclose water drain grooves that run at an angle to a perpendicular of the hinge edge towards the side edge.

Altrock discloses a device comprising a mop made from an absorbent material (9), a mop frame including a centerpiece (4) attached to a handle (34; see Figures 1-2), two quadrilateral shaped mop carrier wings (19, 20), each wing mounted by a hinge edge (see Figure 2 edges (25,26)), the carrier wings having inner surfaces which carry the mop and can be pressed by way of squeezing (Figures 2, 5, and 6), wherein at least one of the side edges extending from the hinge edge is slanted towards the opposite side edge (Figures 1-2). Each mop carrier wing forms a trapezoid with a right angle and the larger base line forms the hinge edge (Figures 1-2). The "length" of the mop head is the dimension extending from the top left side of the mop head to the bottom right side of the mop head, as the mop head is oriented in Figure 1. Altrock provides the teaching of providing such a shape for cleaning corners of wallboards (Column 1 Lines 40-46; Column 3 Lines 6-11).

'316 discloses all elements above.

It would have been obvious for one of ordinary skill in the art to modify the shape of the mop carrier wings of Kieson et al. for the trapezoidal quadrilateral shape that Altrock teaches to provide an ease of cleaning corners, wallboards, or other crevices. Further, it would have been obvious for one of ordinary skill in the art to modify the device of Kieson et al. and Altrock to have drain grooves extending the length of the mophead within the carrier wing such as the ones that '316 teach in order to assist in draining of the mopping liquid.

Allowable Subject Matter

4. Claim 8 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

None of the prior art made of record includes water drain grooves that become wider toward the angled side edge. '316, which teaches water drain grooves that extend between an interior surface and a point between the interior surface and the opposite mop carrier wing surface, teaches away from a water drain groove that becomes wider towards the angled side edge. Figure 6 of '316 shows that at the side edge, the water drain groove (87) becomes narrower at the opening (89).

Applicants Arguments

5. In the response filed 03 December 2004, the Applicant contends that:

The combination of Kieson et al., Courtney et al. (or Altrock), and WO 98/06316 does not disclose carrier wings including water drain grooves which run at an angle to a perpendicular of the hinge edge toward the slanted side edge.

Response to Arguments

6. Applicant's arguments filed 03 December 2004 have been fully considered but they are not persuasive.

A. Courtney et al. discloses that pins (24, 26) act as pivot points however do not disclose that the pins in any way serve as a "hinge." Further, Courtney et al. does not disclose water drain grooves that run at an angle to the hinge edge towards the side edge. Additionally, Kieson et al. does not disclose water drain grooves that run at an angle to a perpendicular of the hinge edge towards the side edge. '316 discloses the water drain grooves, as mentioned above, to assist in draining of liquids of the mop. Further, '316 discloses that the *water drain grooves run towards the side edge* and extend the length of the mop head (Page 12 Lines 12-14; Figure 6) and that the water drain grooves are arranged parallel to one another (Figure 6). *These drain grooves, would inherently "run at an angle to" any planar edge piece or physical element (such as a hinge) attached to the device even those that run parallel (zero degrees or 180 degrees) to the water drain grooves that extend the length of the mop head.* Further, it would have been obvious for one of ordinary skill in the art to modify the device of Courtney et al. and Kieson et al. to have drain grooves within the carrier wing such, as the ones that '316 teach, in order to assist in draining of the mopping liquid. The Applicant also states that the references do not disclose or suggest the specific configuration of these groove that "run at an angle to a perpendicular of the hinge edge toward the slanted edge". It is noted that the *specific configuration* has not been claimed. Claim 1 Lines 8-9 simply recite that the "water drain grooves which run at an

angle to perpendicular of the hinge edge toward the slanted side edge." The Applicant does not specify a particular angle, and the grooves of '316 do in fact run at an angle of 0 degrees or 180 degrees to a perpendicular of the hinge edge. The modification of Courtney et al. and Kieson et al. by including the drain grooves of '316, inherently suggests that the drain grooves, however configured, are capable of being present at *any angle* in relationship to a perpendicular of the hinge edge (including zero degrees and 180 degrees). In regards to the Altrock reference, the same response to the arguments made of Courtney et al. in view of Kieson et al. is appropriate.

Conclusion

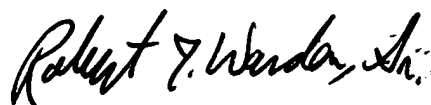
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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26 August 2004


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